

WHAT IS CLAIMED IS:

1. A method for changing capability of a channel allocated to a connection in a telecommunications system, where the connection comprises at least a part with a first interworking function at a first end and a second interworking function at a second end, the method comprising the steps of
  - 5     allocating a channel between the interworking functions to a connection,
    - 10     detecting in the first interworking function that a channel capability must be changed;
    - 10     transmitting to the second interworking function a first message which indicates a desired capability change; and
    - 10     changing the channel capability into the desired capability at the first and the second ends.
  - 15     2. A method for changing capability of a channel allocated to a connection in a telecommunications system, where the connection comprises at least a part with a first interworking function at a first end and a second interworking function at a second end, the method comprising the steps of
    - 20     allocating a channel between the interworking functions to a connection,
    - 20     detecting in the first interworking function that a channel capability must be changed;
      - 25     checking, in response to the detected need for capability change, what kind of a change can be performed at the first end;
      - 25     transmitting to the second interworking function a first message which indicates the change which can be performed at the first end as a desired capability change; and
      - 25     changing the channel capability into the desired capability at the first and the second ends.
  - 30     3. A method for changing capability of a channel allocated to a connection in a telecommunications system, where the connection comprises at least a part with a first interworking function at a first end and a second interworking function at a second end, the method comprising the steps of

allocating a channel between the interworking functions to a connection,

detecting in the first interworking function that a channel capability must be changed;

5 transmitting to the second interworking function a first message which indicates a desired capability change;

checking in the second interworking function whether the desired capability change can be performed in response to the reception of the first message; and

10 if the capability can be changed into the desired one:

a second message is transmitted to the first interworking function, which message indicates that the desired capability change can be performed at the second end;

15 changing the channel capability into the desired capability at the second end; and

changing the channel capability into the desired one at the first end in response to the reception of the second message.

20 4. The method as claimed in claim 3, wherein, if the capability cannot be changed into the desired one, the method further comprises the steps of:

25 checking which kind of a change can be performed at the second end; and

transmitting to the first interworking function a second message which indicates that the change that can be performed at the second end is the desired capability change.

30 5. The method as claimed in claim 3, further comprising the steps of:

35 checking in response to the reception of the second message in the first interworking function, whether the desired capability change can be performed; and

if the capability can be changed into the desired one, the method further comprises the steps of:

transmitting a third message to the second interworking function, which message indicates that the desired capability change can be performed at the first end;

- 5                    changing the capability into the desired one at the first end; and  
                  changing the capability into the desired one at the second end only  
in response to the reception of the third message.

10                 6. The method as claimed in claim 5, wherein, if the capability cannot be changed into the desired one, the method further comprises the steps  
of:

transmitting to the second interworking function a fourth message, which indicates that the desired capability change cannot be performed at the first end;

- 15                 modifying the desired capability change in response to the reception  
of the fourth message in the second interworking function; and  
                  transmitting to the first interworking function a new second mes-  
sage, which indicates that the modified capability change is the desired one.

20                 7. The method as claimed in claim 3, further comprising the steps  
of:

                  checking, in response to the detected need for capability change,  
what kind of a change can be performed at the first end; and

                  indicating in the first message the change which can be performed  
at the first end as the desired capability change.

25                 8. A telecommunications system comprising  
                  at least a first part for transferring data between end-users of the  
system,

30                 at least a first interworking function at a first end of the first part,  
                  at least a second interworking function at a second end of the first  
part; and

                  the first and the second interworking functions being arranged to  
allocate a channel in the first part to the connection between the end-users,  
                  wherein the first interworking function is arranged to detect a need  
35                 for change in the channel capability and to transmit to the second interworking  
function a first message that indicates the desired capability change, and

the first and the second interworking functions are arranged to change the channel capability into the desired one.

9. The telecommunications system as claimed in claim 7, wherein  
5       the second interworking function is arranged to check in response to the first message, whether the desired capability change can be performed, and if the capability can be changed into the desired one, to transmit to the first interworking function a second message which indicates that the desired capability change can be performed at the second end; and  
10       the first interworking function is arranged to change the capability into the desired one only in response to the reception of the second message.

10. The telecommunications system as claimed in claim 9,  
wherein, if the second interworking function is not able to change the capability  
15       into the desired one, it is arranged to check what kind of a change can be performed, and to indicate in the second message the change which can be performed as the desired capability change.

11. The telecommunications system as claimed in claim 9, wherein  
20       the first interworking function is arranged to check in response to the reception of the second message, whether the desired capability change can be performed, and if the capability can be changed into the desired one, to change the capability into the desired one and to transmit to the second interworking function a third message which indicates that the desired capability  
25       change can be performed at the first end, and  
              the second interworking function is arranged to change the capability into the desired one in response to the reception of the third message.

12. The telecommunications system as claimed in claim 8, wherein  
30       the first interworking function is arranged to check in response to detecting a need for capability change, what kind of a change can be performed and to indicate in the first message the change which can be performed at the first end as the desired one.

13. The telecommunications system as claimed in claim 8, wherein the first interworking function is arranged to detect the necessary change on the basis of the information received from another entity of the system.

5           14. The telecommunications system as claimed in claim 8, wherein the first interworking function is arranged to detect the necessary change from the subscriber information provided for the subscriber using the connection.

10          15. The telecommunications system as claimed in claim 8, wherein the first interworking function is arranged to detect the necessary change by listening to the channel allocated to the connection.

15          16. The telecommunications system as claimed in claim 8, wherein the first part is packet-switched.

15          17. The telecommunications system as claimed in claim 16, wherein an ELCP protocol is employed between the first interworking function and the second interworking function.

20          18. The telecommunications system as claimed in claim 8 further comprising at least one circuit-switched part.

25          19. A telecommunications system node comprising a first interworking function arranged to allocate a channel to a user of the telecommunications system between itself and a second interworking function located in a second node of the telecommunications system,

              to detect a need for change in the channel capabilities and to transmit to the second interworking function a first message that indicates the desired capability change.

30          20. The node as claimed in claim 19, wherein the first interworking function is arranged to check in response to the need for channel capability, what kind of a change can be performed, and to indicate in the first message the change which can be performed as the desired capability change, and in response to the second message received from the second interworking func-

tion, which indicates that the second interworking function can change the capability into the desired one, to perform the desired capability change.

21. The node as claimed in claim 20, wherein in response to a third

5 message received from the second interworking function, which third message indicates that the second interworking function cannot change the channel capability into the desired one, the first interworking function is arranged to modify the desired change and to transmit a new first message, which indicates the result of the modification as the desired change.

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22. The node as claimed in claim 19, wherein  
in response to the message received from the second interworking function, which message indicates the capability change that the second interworking function can perform as the desired one, the first interworking function  
15 is arranged to check whether the first interworking function can perform the change indicated in the second message, and if it can, to transmit an acknowledgment of the change to the second interworking function and to perform the desired capability change, and if it cannot, to transmit a change reject message to the second interworking function.

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23. The node as claimed in claim 19, the node being a network  
node.

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24. The node as claimed in claim 19, the node being a terminal device in the telecommunications system.

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25. A telecommunications system node comprising a first interworking function arranged to allocate a channel to a user of the telecommunications system between itself and a second interworking function located in a second node of the telecommunications system, to receive a first message which indicates the need for change in the channel capability, to check whether it can perform the change indicated in the first message, and if it can, to transmit a second message which indicates that the first interworking function can perform the desired capability change.

26. The node as claimed in claim 25, wherein the first interworking function is arranged to perform the desired change in response to the transmission of the second message.

5           27. The node as claimed in claim 25, wherein the first interworking function is arranged to receive a third message, which indicates that the second interworking function can perform the desired change, and in response to the reception of the third message to perform the desired change.

10          28. The node as claimed in claim 25, wherein if the first interworking function cannot perform the desired change indicated in the first message, the first interworking function is arranged to modify the desired capability change and to transmit the modified capability change in the second message as the desired capability change.

15          29. The node as claimed in claim 25, wherein the first interworking function is arranged to receive a fourth message, which indicates that the second interworking function cannot perform the desired capability change, and in response to the fourth message to modify the desired capability change and to transmit the modified capability change in a new second message as the desired capability change.

30. The node as claimed in claim 25, the node being a network node.

25          31. The node as claimed in claim 25, the node being a terminal device in the telecommunications system.

30          32. A telecommunications system node comprising a first interworking function arranged to allocate a channel to a user of the telecommunications system between itself and a second interworking function located in a second node of the telecommunications system, to detect a need for change in the channel capabilities, to check in response to the need for channel capability, what kind of a change can be performed and to transmit to the second interworking function a first message indicating the change which can be performed as the desired capability change.

33. A telecommunications system node comprising a first interworking function arranged to allocate a channel to a user of the telecommunications system between itself and a second interworking function located in a second node of the telecommunications system, to receive a first message
- 5 which indicates the need for change in the channel capability, to check whether it can perform the change indicated in the first message, and if it can, to transmit a second message which indicates that the first interworking function can perform the desired capability change, and if it cannot perform the desired change indicated in the first message, the first interworking function is
- 10 arranged to modify the desired capability change and to transmit the modified capability change in the second message as the desired capability change.